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FOREST PEST MANAGEMENT

Technology Update

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Southern Pine Beetle Fact Sheet Number 31

SPBEEP — A COMPUTER PROGRAM

Purpose

This fact sheet discusses a computer program called SPBEEP (Southern Pine Beetle Economic Evaluation Procedure). This program can be used by forest managers to analyze the economic benefits and costs associated with SPB control projects.

Description

SPBEEP provides an economic analysis of the cash flows that will result when a southern pine beetle infestation is suppressed by a salvage cut. The first part of this added income will be available at salvage for harvesting that additional part of the infested timber that would not have been available without such a control project. At harvest, additional trees would be available for cutting — resulting in more income — than if the beetles had not been kept out of the adjacent timber. The added income at both periods is compared to the cost of the control project. Various performance measures are used to assess the project's desirability, based on a chosen rate of return. Certain timber volume figures are also needed for this computer program. These figures may be generated by hand -- or by a computer, using the Pre-Benefit Cost Analysis Model on the same menu as SPBEEP.

Inputs

1. Management objectives
2. Cost of the project
3. Green and salvage pulpwood prices
4. Green and salvage sawtimber prices
5. Discount rate
6. Real rate of stumpage price change
7. Forest type
8. Average site index
9. Number of age categories and the average age for each.
10. Percentage of volume killed that will be salvaged with, and without, a project.
11. Estimated volume killed for each age category, stratified by spot size class.
12. Age at which stumpage will be harvested
13. Percentage of stumpage removed at thinning

Outputs

1. Volume lost
2. Volume threatened
3. Volume at harvest
4. Stumpage growth rate
5. Spot growth rate
6. Value at harvest
7. Present stumpage values
8. Value lost
9. Value of project benefits
10. Net present value of stumpage
11. Benefit-cost ratio
12. Internal rate of return
13. Composite rate of return
14. Volume removed
15. Volume protected

Accessibility

SPBEEP is accessible via telephone and an interactive terminal with the USDA Forest Service's Forest Pest Management computer. Dial 404/221-5200 (commercial) or 242-5200 (FTS). The program is listed as Benefit/Cost with and without a project.

Additional Information

Send any questions about this model and its use to Clair Redmond, Economist, or Kenneth M. Swain, Staff Entomologist, USDA Forest Service, 1720 Peachtree Road, Suite 925, Atlanta, GA 30367. Telephone 404/881-2723, or via FTS: 257-2723.